WHAT IS CLAIMED IS:

1. A method for treating a neuronal oxidative stress related condition comprising the administration to a patient in need thereof of a therapeutically effective amount of an antioxidative composition comprising pyruvate, at least one antioxidant and at least one lipid.

2. The method of claim 1, wherein said pyruvate, antioxidant and lipid are present in said composition in an amount that have a synergistic protective effect on neuronal cells.

3. The method of claim 1, wherein said at least one lipid consists of at least one fatty acid selected from the group consisting of monoglycerides, diglycerides, triglycerides, free fatty acids, and mixtures thereof.

4. The method of claim 3, characterized in that said at least one fatty acid consists of a mixture of saturated and unsaturated fatty acids.

5. The method of claim 4, characterized in that said fatty acids are present in an amount varying from about 0.001% v/v to about 1% v/v, by weight of the neuroprotective composition.

6. The method of claim 1, wherein pyruvate is selected from the group consisting of pyruvic acid, pharmaceutically acceptable salts of pyruvic acid, prodrugs of pyruvic acid, and mixtures thereof.

7. The method of claim 1, wherein pyruvate is present in said composition in an amount varying from about 0.1 mM to about 100 mM.

8. The method of claim 1, wherein said at least one antioxidant is selected from lipid-soluble antioxidants.

9. The method of claim 1, wherein said at least one antioxidant is selected from the group consisting of Vitamin A, carotene, Vitamin E, pharmaceutically acceptable salts thereof, and mixtures thereof.

10. The method of claim 1, wherein said at least one antioxidant is selected from the group consisting of Vitamin E, Vitamin E acetate and analogues of Vitamin E.

11. The method of claim 1, wherein said at least one antioxidant is present in the composition in an amount varying from about 0.01 unit/ml to about 10 unit/ml of the composition.

12. The method of claim 1, wherein the composition further comprises an agent selected from the group consisting of metal chelators, metal scavengers, proteinic metal chelators, proteinic scavengers, preserving agents, solubilizing agents, stabilizing agents, wetting agents, emulsifiers, sweeteners, colorants, odorants, salts, buffers and coating agents.

13. The method of claim 1, for the treatment of brain trauma, neurodegenerative disease(s), poisoning of neuronal cells, and for the diminution of drugs side effects.

14. A method for treating a neuronal oxidative stress related condition comprising:

- administrating to a patient in need thereof of a therapeutically effective amount of an antioxidative composition comprising pyruvate and at least one antioxidant; and
- providing into blood circulation of said patient at least one lipid having a synergistic therapeutic effect on neuronal cells in combination with said antioxidative composition.

15. The method of claim 14, wherein said at least one lipid is provided to said patient by increasing its lipidic blood level ratio through its diet.

16. The method of claim 14, wherein said neuronal oxidative stress related condition is a brain trauma, amyotrophic lateral sclerosis, a neurodegenerative disease, neuronal cells poisoning, side effects caused by a drug or handling of a neuronal graft.

17. A method for the treatment of neuronal cells, comprising contacting said cells with a therapeutically effective amount of an antioxidative composition comprising pyruvate, at least one antioxidant and at least one lipid.

18. The method of claim 17, for protecting neuronal cells *in vitro*, *in vivo* and *ex vivo* against an oxidative stress related condition.

19. The method of claim 17, for the treatment of brain trauma, neurodegenerative disease(s), poisoning of neuronal cells, for the diminution of drugs side effects and for the preservation of neuronal grafts.

20. A method for preparing a neuroprotective composition, characterized in that it comprises the steps of:

a) providing a therapeutically effective amount of: i) pyruvate, ii) at least one antioxidant; and iii) at least one lipid; and

b) mixing together the components i), ii) and iii) of step a) in a physiological buffered saline solution to obtain a pharmaceutically acceptable homologous suspension.

21. The method of claim 20, further comprising at least one of the steps of centrifuging or filtering the homologous suspension obtained in step b).